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## ED STATES PATENT AND TRADEMARK OFFICE



In re Application of:

Ryusuke Hasegawa et al.

Group Art Unit:

3747

Serial No.:

09/779,877

Examiner:

Hai H. Huynh

Filed: For:

February 8, 2001

MAGNETIC CORE-COIL ASSEMBLY FOR

**SPARK IGNITION SYSTEMS** 

Old Docket No.:

Vi

11872-022001 / 30-4106USRei

New Docket No.:

0017-28 Re

Morristown, NJ 07960 February 20, 2002

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**Assistant Commissioner for Patents** Washin on, DC 20231

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**TECHNOLOGY CENTER R3700** 

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## AMENDMENT UNDER 37 CFR 1.111

In response to the Office Action dated November 30, 2001, the following remarks are filed. Claims 1-18 are under consideration.

Applicants' invention, as recited by present claims 1 to 18, provides a magnetic core-coil assembly for a coil-per-plug (CCP) spark ignition transformer. Such CCP spark ignition transformers are suited for use in ignition systems of internal combustion engines. The assembly is capable of rapidly generating a high voltage output from a secondary coil in response to a low voltage excitation of a primary coil. Advantageously, the core-coil assembly of the present invention (i) can repeatedly generate the high voltages required for ignition events in an internal combustion system; (ii) efficiently transfers energy from the coil to the plug; (iii) exhibits very low core loss, thereby enabling it to provide a highly accurate representation of the ignition profile for use in adaptive engine control; and (iv) is easier to manufacture than prior art systems and devices employing toroidal cores, especially in the ungapped aspects of the invention.

3747

AMENDMENT TRANSMITTAL LETTER					ATTORNEY'S DOCKET NO.: 0017-28 Re / 30-4106 USRei			
SERIAL NUMBER	FaLING DATE: MAR 1 1 2012 February 8, 2001		EXAMINER: Hai H. Hu	GROUP ART UNIT: 3747				
MAGNETIC CORE-COLE ASSEMBLY RECEIVED								
FOR SPARK IGNITION SYSTEMS  MAR 1 5 2002								
14.15 TN		MAR	1 5 2002					
INVENTOR(s): Ryusuke Hasegawa et al.						TECHNOLOG	Y CENTER R3700	
TO THE ASSISTANT COMMISSIONER FOR PATENTS:  Transmitted herewith is an amendment in the above-identified application. The fee has been calculated as shown below.								
CLAIMS AS AMENDED								
11 ( <b>()</b> ) - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(2) CLAIMS REMAINING AFTER AMENDMENT	(3)	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR		(5) NO. OF EXTRA CLAIMS PRESENT	(6) RATE	(7) ADDITIONAL FEE	
TOTAL CLAIMS	**18	MINUS	•	18	0	X \$18	0.00	
INDEP. CLAIMS	**5	MINUS		<b>*</b> 5	0	X \$84	0.00	
TOTAL ADDITIONAL FEE \$ 0. FOR THIS AMENDMENT								
No additional fee is required.  Charge \$								
and requests that the \$ fee be charged to Deposit Account No. 01-1125  A triplicate copy of this sheet is enclosed.								
Charge any additional fees to Deposit Account No. 01-1125								
February 20, 2002 Date Signature								
Ernest D. Buff Attorney Name								
(072) (44,0000					25,833			
(973) 644-0008 Phone				Reg. Number				
I hereby certify that envelope addressed	t this correspondence is d to: Assistant Commis	s being depo sioner for I	osited with Patents, Wa	the United Standard Indicated Standard Indicated Standard Indicated Standard Indicated Standard Indicated Standard Indicated I	(Signature)  Ernest D. Bu Attorney of Reco	off	nail in an 02	
	February 20, 2002							